RESOLUTIONS ON MATTERS OF GENERAL PUBLIC INTEREST.

Appointment of a Committee for Improvement of Paddy Cultivation.*—*(contd.)

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): Sir, with regard to the resolution moved by Mr. C. P. Kochukunju Pillai, I beg to point out the following facts for the consideration of this House. His statement that there is a considerable increase in the import of paddy is based on the figures showing the value of paddy and rice imported into the country. (*A voice: "Louder, please".*) If the value increases, it does not naturally follow that the quantity will also increase. In calculations like this, it is the quantity that should be taken into account. Even if there is an increase in the quantity imported in the course of ten or fifteen years, it does not mean that the local output has become less. The quantity required for consumption depends on the population and the standard of living of the people. Further, the statistics collected by Dr. Kunjan Pillai, the permanent Director of Agriculture, in 1917, showed that 5,77,000 acres of land were then under paddy cultivation; but, according to the latest agricultural statistics, the area under paddy cultivation is 6,57,000 acres. Though there might have been some decrease in the yield of paddy in some localities, this would be small when compared to the output from the increased areas brought under cultivation by the reclamation of backwaters and by throwing out forest lands for cultivation and by the substantial increase in the production of paddy in South Travancore as a result of the construction of the Kodayar dam. Government admit that there is room for further development of paddy cultivation, both extensively and intensively, and they are doing all that is necessary in the matter.

MR. T. KUMARA PILLAI (*Eraniel* cum *Vilavankod*): തെക്കൻ തിരുവിതാംകൂറിലെ ഓരോ കൃഷിക്കാരനും കിട്ടിവരുന്ന ആദായം വർദ്ധിച്ചുവരുന്നോ, കുറഞ്ഞുവരുന്നോ ?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): Should I answer in English or in Malayalam ?

PRESIDENT: You may answer in English.

MR. K. PARAMESVARAN PILLAI: (*Ag. Director of Agriculture and Fisheries*): In certain localities there is a decided increase, but in certain other localities there is a decrease. This decrease is mainly due to the want of care on the part of the cultivators themselves.

MR. T. KUMARA PILLAI (*Eraniel* cum *Vilavankod*): കൂടുതൽ കിട്ടിവരുന്നു എന്നു പറയുന്ന സ്ഥലങ്ങളേതെല്ലാമാണ് ?

MR. K. PARAMESVARAN PILLAI: (*Ag. Director of Agriculture and Fisheries*): In most places near the paddy farm at Nagercoil, there is a decided increase, and, then again, in certain localities near Mahadanapuram and Tazhakkudi. Of course, I am not in a

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position to mention off-hand all the areas where there is a decided increase; but, all the same, I shall point out in a rough way the localities where there is a substantial increase.

MR. T. KUMARA PILLAI (*Eraniel* cum *Vilavankod*): വിളവു കുറവുള്ളതിനുള്ള കാരണം കൃഷിക്കാരുടെ സൂക്ഷ്മക്കുറവുകൊണ്ടാണെന്നു പറഞ്ഞല്ലൊ. അതെങ്ങനെയാണ് ?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): They do not take particular care in the matter of manuring, in the preparation of the soil and in the matter of using selected seeds of improved varieties.

MR. T. KUMARA PILLAI (*Eraniel* cum *Vilavankod*): ഇതുതന്നെയാണ് കാരണമെന്നറിയാമൊ ?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): Certainly.

MR. T. K. VELU PILLAI (*Trivandrum* cum *Nedumangad*): If that is so, I wish to ask how many had been getting better harvest in past years.

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): I shall explain that. As the cultivation continues for a very long time, the soil will get exhausted, and unless we do something to increase the fertility of the soil, naturally the soil will suffer and the out-put will decrease.

MR. T. KUMARA PILLAI (*Eraniel* cum *Vilavankod*): ഈ കായ്ത്തെ ചൂണ്ടിക്കാണിച്ച് അതിനു വേണ്ട സഹായം ചെയ്യാൻ ഗവർൺമെൻറിനെ അറിയിച്ചിട്ടുണ്ടോ ?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): That is exactly what we have been doing. We have conducted a soil survey of the whole of Nanjanad. I myself was doing the work. I have analysed typical samples of soils taken from almost all the areas in Nanjanad and have pointed out their defects. Our conclusions are that our soils are lacking very much in phosphoric acid and we are suggesting certain lines and advising the cultivators very often in this matter and issuing leaflets which contain the conclusions based upon the results achieved by our experiments.

MR. C. P. KOCHUKUNJU PILLAI (*Kottarakara* cum *Kunnattur*): Has the department made experiments in regard to the nature of the soil of any other taluk?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): Not to the same extent as we have done in the case of Nanjanad and Kuttanad.

MR. C. P. KOCHUKUNJU PILLAI (*Kottarakara* cum *Kunnattur*): May I know in what other taluks the enquiry has been made?

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MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*) : The whole of Kuttanad, *i. e.*, the area comprised by the low-lying lands of Changanachery, Ambalapuzha and Kartikapalli, and portions of Kottayam also.

MR. C. P. KOCHUKUNJU PILLAI (*Kottarakara* cum *Kunnattur*) : Any scheme drawn up to improve the yield from the land ?

PRESIDENT : He has already answered that. He said that bulletins containing the results of the investigations of the department have been published and that they contain suggestions regarding suitable manures.

MR. C. P. KOCHUKUNJU PILLAI (*Kottarakara* cum *Kunnattur*) : So the enquiry has not been extended to all the taluks ?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*) : It is a laborious process. For the soil survey of Nanjanad itself it took about half a dozen years. For Kuttanad also, we required the same number of years. Now we have taken up Vaikam. We will extend it to another taluk, probably next year.

MR. JOSEPH PANJIKARAN (*Shertallai*) : Have you ever had to analyse the soil of paddy lands at Shertallai ?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*) : I have analysed two samples from Shertallai. The paddy lands of Shertallai consist of loose white sand containing a very low percentage of plant food materials, and, unless you manure the soil, the yield will be very very low.

MR. JOSEPH PANJIKARAN (*Shertallai*) : Is it that the soil that you analysed is of a loose sand variety ?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*) : Yes, and it contains less than one per cent. of organic matter only.

MR. P. K. NARAYANA PILLAI (*Ambalapuzha*) : Have you examined all the *kari* lands in Travancore ?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*) : Yes, I have examined them all over Travancore.

MR. S. KRISHNA AIYAR (*Mavelikara* cum *Kartikapalli*) : Will Mr. Paramesvaran Pillai be able to tell us what defects he found in the *kari* lands and whether they are capable of remedy ?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*) : We have got *kari* lands at Purakkad, Turavur, Vechur and Chempil and certain parts of Muvattupuza. We have conducted investigations of samples of soils taken from different places in all these localities, and we find that the organic matter present consists mostly of partially decomposed vegetable matter. In some places we find as much as about 40 per cent. of organic matter. In typical paddy soil, the percentage of organic matter should be somewhere between 7 and 10 per cent. If it is more than that, the chances are that the soil will become acidic and the biological activity of the soil will come to a

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standstill. And the manure present in the soil cannot be rendered fit for absorption. In the case of Purakkad *kari* lands, we find in certain cases 28 per cent. of organic matter present. That is too much. We do not want more than 10 or 15 per cent. In such cases, we advise the cultivators to apply plenty of lime, say, 2 to 3 tons per acre. The drainage is very important. Unless we drain the soil well, air cannot enter freely into it and render the plant material present in the soil capable of being absorbed by the plant. That means, there should be plenty of airation in the soil. Then there are, I think, some other defects, *viz.*, the presence of an immense amount of organic acid that can also be removed by the application of lime and by means of proper drainage.

MR. S. KRISHNA AIYAR (*Mavelikara* cum *Kartikapalli*): Has Mr. Paramesvaran Pillai analysed the efflorescence found in the *kari* lands of Purakkad?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): Yes, I have done that. It contains sodium chloride and in some cases sulphates and carbonates of magnesium and calcium.

MR. S. KRISHNA AIYAR (*Mavelikara* cum *Kartikapalli*): Does he know that in Travancore we have not more than ten cents of paddy lands per head of population?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): The total area of paddy lands is, I think, 6,57,000 acres, at present, according to the latest agricultural statistics. We know the population of the State and if you divide it by the number of the population we can get the answer easily.

PRESIDENT: It requires some calculation. (*Laughter.*)

MR. K. C. MAMMEN MAPPILLAI (*Commerce and Industries, North*): Some of the ryots are told that the application of fish guano manure is valuable. From what you say there is already too much of organic matter. May I know how the fish manure could remedy the defects?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): I am sorry I have been misunderstood. Organic matter means substances of vegetable and animal origin. It may or may not be rich in phosphoric acid and the idea of supplying fish manure is to add to the phosphoric acid contents in the soil. Fish guano contains about 8 per cent. of phosphoric acid and it will naturally add to the phosphoric acid already present in the soil and then the result will be very good.

MR. P. K. NARAYANA PILLAI (*Ambalapuzha*): May I know whether the investigations which the Director of Agriculture was carrying on with respect to Purakkad *kari* lands have been closed?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): No. The problems involved in the investigation of

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kari lands are purely of a biochemical nature. So far, we have been able to conduct only chemical investigation. The biological side has to be taken up. For that, we want a man specially trained in soil bacteriology. The Government have deputed a man for training; and as soon as he comes back, this question will be taken up.

MR. P. K. NARAYANA PILLAI (*Ambalapuzha*): Is the department in a position to give an assurance that the *kari* lands in the Ambalapuzha taluk may be rendered cultivable?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): The results obtained so far are very encouraging. Further investigations have to be conducted. We can come to a definite conclusion only after we complete the investigations.

MR. P. K. NARAYANA PILLAI (*Ambalapuzha*): Will he give some adequate idea as to the percentage of land lying uncultivated?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): I am sorry I cannot give you that information at present.

PRESIDENT: Please proceed.

MR K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): Mr. Kochukunju Pillai's idea is to get a committee appointed to suggest methods for improvement in regard to intensive and extensive cultivation. So far as I am aware, failure of crops is ordinarily due to the rainfall being scanty or excessive. Both of these are causes beyond our control. Under normal conditions, if the cultivators pay sufficient attention to the preparation of the soil, to manuring, to watering and to the use of the right kind of seed, there cannot be any failure of crops. These causes are very patent and I do not find any necessity for appointing a special committee to investigate them.

MR. T. KUMARA PILLAI (*Eraniel* cum *Vilavankod*): തെക്കൻ തിരുവിതാംകൂറിൽ മാനാമാരി നിലങ്ങളിൽ കൃഷി എങ്ങനെ നടത്തും?

Mr. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): I will tell you at the very outset—

PRESIDENT: You will have to address me.

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): I may say at the very outset that some of these questions I may not be able to answer off-hand.

MR. T. KUMARA PILLAI (*Eraniel* cum *Vilavankod*): അദ്ദേഹം എന്റെ ചോദ്യം മനസ്സിലാക്കിയില്ലെന്നു തോന്നുന്നു. മാനാമാരി നിലങ്ങൾക്കു മഴപെയ്തു കിട്ടുന്നവെള്ളം മാത്രമേയുള്ളൂ. ആ സ്ഥലങ്ങളിൽ ഉണ്ടാകുന്ന കുറവിനെ പരിഹരിക്കാൻ വല്ലമാർഗ്ഗവും ഉണ്ടോ?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): Yes; I know.

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MR. T. KUMARA PILLAI (*Eraniel* cum *Vilavankod*): അതി ന അവർ എങ്ങനെ പരിഹരിക്കും?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): When the rainfall fails, naturally we have to resort to minor works of irrigation. Water has to be stored and got from other sources.

MR. T. K. VELU PILLAI (*Trivandrum* cum *Nedumangad*): Has the Agricultural Department addressed the Government on the necessity of improving irrigation in such *manamari* lands?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): I am not quite sure, I think probably the department has.

PRESIDENT: I can answer the question. I do not, however, want to join in the debate, for obvious reasons. The House will remember that Mr. Paramesvaran Pillai has been absent for a long time, and he has returned only a month or two back, and so he may not be acquainted with all the activities of the department.

MR. T. K. VELU PILLAI (*Trivandrum* cum *Nedumangad*): I wish to offer a word of personal explanation. From the way in which he answered the questions, personally I was satisfied that he was up to the mark in answering questions.

PRESIDENT: He has been trying his level best to pick up information and he has been doing a good deal in that way.

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): First of all, the committee is to enquire into the cause of failure of crops and then to suggest methods for the improvement of extensive and intensive methods of cultivation. Of course, I explained something about the failure of crops. The causes are so very patent that I do not see any reason why a committee should be appointed to investigate the question.

In regard to intensive and extensive cultivation, this question was considered at great length by the Economic Development Board at some of its early meetings. The Board collected all available and necessary data on the subject and after careful examination made its considered recommendation to the Government as to how intensive and extensive cultivation should be improved. It was as the result of the action taken by the Government on the above recommendation that local committees were appointed to report on the question of disafforesting swampy lands suitable for paddy cultivation.

MR. C. P. KOCHUKUNJU PILLAI (*Kottarakara* cum *Kunnattur*): May I know whether the members of the Board have inspected the different taluks and the paddy fields in those places?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): The Board has got representatives from all parts of

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Travancore and the Director of Agriculture, who is also on it, knows what the condition of paddy lands all over the State is.

MR. C. P. KOCHUKUNJU PILLAI (*Kottarakara* cum *Kunnattur*): May I know whether they have gone into the different parts of the State to collect information regarding the different taluks?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): So far as I know, they had no necessity for that. Action is being taken by the Government on the recommendation of these committees. The question of the reclamation of *alkali* and *kari* lands for paddy cultivation has already received the special attention of the Government. A preliminary survey of such lands has been made and an officer of the Agricultural Department has been deputed to the Agricultural Research Institute, Pusa, for training in soil bacteriology with a view to equip him fully for the biological investigation of *kari* lands.

As regards intensive cultivation, the aim is to secure the maximum yield from the soil at the minimum cost. This can be done by the introduction of improved varieties of seeds, by proper tillage, by scientific manuring, by the adoption of improved cultural methods and by keeping off fungoid and insect pests. From the annual reports and other publications of the Agricultural Department, it will be seen that the department is doing all that is possible in this direction. There is a paddy farm at Nagercoil where improved varieties of paddy seeds are being produced and distributed to the ryots, especially through the agency of seed unions organised by the department. The seeds, selected in the farm, find a ready sale, and arrangements have also been made at other places for supplying selected seeds to ryots. The department has tried various kinds of agricultural implements and those which are found to be suited to our local conditions are being popularised. The Climax and the Meston ploughs and the plough manufactured in the Agricultural School at Alwaye have been found to be very useful and they are being stocked and supplied at cost price. Tractor-ploughing, with a view to reduce the cost of cultivation, has been tried and is being demonstrated with much success in South Travancore, where 200 to 300 acres of paddy lands are ploughed annually with the motor tractor belonging to the department. The department took up the question of supplying scientific manures even from its very start. Oil cakes, fish manure and other local manures, which used to be either exported or wasted some years ago, are being collected and sold within the country by the department as well as by private merchants and firms. The steady fall in the export of these stuffs from the country, as can be seen from the figures supplied by the Excise Department, is due entirely to their use within the country. Chemical manures are also being got down from outside and supplied to the ryots at cost price. At first the work was done by the department by opening a few Government depôts. As the demand for manures increased, the department began to enlist the co-operation of private agencies and at present there are about forty depôts managed by commission agents, some of them being co-operative societies. There

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are also two private companies at Alleppey which do a large volume of work in this direction. The Mycologist and the Entomologist, as well as the district staff, are ever on the alert to investigate and find out successful methods of keeping off plant pests and diseases.

From what has been said, it will be seen that the Agricultural Department is doing all that is possible in improving intensive cultivation in the country. More than all these, demonstrations are being conducted by the department on ryots' lands at several places, the owners themselves being made to do all work under the supervision of the department. The possibility of annual cultivation of *punja* lands by the adoption of systematic tillage and judicious manuring has been experimented for 5 years on 30 acres of *punja* lands and the method is now being demonstrated in four important centres. A special committee, even if appointed, may not have anything more to suggest. Since the Agricultural Department is doing all that is possible and necessary for the improvement of intensive cultivation of paddy and since the subject has recently been fully examined by the Economic Development Board, composed of members thoroughly competent to discuss the question, it will be only waste of public money to appoint a separate committee for the purpose.

Each of the several problems which has to be solved in connection with the subject of this resolution is so important and difficult that it will take many years before it can be successfully solved, and it has to be tackled carefully and gradually and that is what the Government are doing. But if all these problems are to be investigated by a single committee, the field of its enquiries becomes so vast that it cannot be expected to complete the investigations and offer practical suggestions within a reasonable ti ne, and when it ultimately does so, it is not unlikely that it will be found that the cost involved in carrying out all the suggestions simultaneously will be gigantic.

Of course, some of the members referred to the supply of green leaf manure and other things. What I have said will cover, I hope, everything in regard to manuring.

MR. T. K. VELU PILLAI (*Trivandrum* cum *Nedumangad*): May I know how the Agricultural Department proposes to prevent the filling up of paddy fields by the earth brought down from the neighbouring hills and neighbouring lands on a higher level?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): Of course, that is left to the owners themselves. What is suggested is to have terraces or trenches constructed so as to prevent it.

MR. T. K. VELU PILLAI (*Trivandrum* cum *Nedumangad*): Is there no practical remedy which the department can propose?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): I think this is quite practicable.

MR. R. DHANUKOTI PILLAI (*Conservator of Forests*): My

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friend Mr. Paramesvaran Pillai has explained to the House what his department has been doing in the matter of intensive cultivation of paddy. With regard to extensive cultivation, I have to say that the Government have been taking interest in the matter. The matter was taken up by the Economic Development Board at their meeting in 1097, and the subject was considered in all its aspects. The Economic Development Board, at that time, consisted of representatives from different parts of the State, and the subject was thoroughly discussed and it was resolved that the Board should make a recommendation to the Government with regard to the investigation of the following projects :—

(1) To investigate new irrigation projects such as Adirapalli, Kottappara, etc., (2) to throw open lands within reserved forests fit for paddy cultivation ; (3) to investigate the possibility of reclaiming the Kayankulam lake, and also to take steps in regard to the reclamation of submerged areas in Munambam, Parur, Kaippizha and other places ; and (4) to restore minor irrigation works, to repair irrigation and drainage channels in the *punja* lands, to investigate the *Chatakkal todu*, Kaviyur and other cognate schemes, and to ascertain the possibilities of extending irrigation from the Sastancottah lake. It was also resolved to approach the Government to appoint a special engineer for this purpose.

Mr. Kochukunju Pillai was asking us whether we had a comprehensive scheme considered for the whole State. The above summary will show that the whole question has been gone into carefully. With regard to the recommendations made, I may say that Government have already taken action on many of them. Committees were appointed for several taluks to select lands fit for paddy cultivation from reserves. We have now received reports of the Pattanapuram, Devicolam and Peermade taluk Committees. Government have passed orders on these reports by which an area of 1,150 acres in the Devicolam taluk, 790 in the Peermade taluk, and about 200 in the Pattanapuram taluk is made available from inside reserves for the cultivation of paddy. The committees appointed for the Shencottah, Pattanamtitta and Todupuzha taluks have not submitted their reports, but from the reports I received, I may say that the lands to be made available for paddy cultivation in these taluks will be even greater.

For the restoration of minor irrigation works, Government have also taken action, and more funds are provided for this purpose in the current year's budget, and I know that some progress is being made in this direction in regard to the utilisation of water from the Sastancottah lake for irrigational purposes. The Chief Engineer will be in a position to tell us what progress has been made in regard to other works. As regards the Adirapalli Scheme, the project is expected to bring two thousand five hundred acres under paddy cultivation. Government have already taken steps in regard to this matter, but on account of some objection raised by the Cochin Government the matter is being delayed somewhat. Nevertheless, the preliminary works in connection therewith are being proceeded with. A road as far as Adirapalli has been traced and I believe some work on it is also done this year. So far

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as Travancore is concerned, it is not possible for us to utilise all lands for the cultivation of paddy. Only such lands as are suitable for paddy cultivation can be made available. An area of 800 acres at Mannavankandam in the upper source of the Deviar river, a tributary of the Periyar river, has already been disafforested from the Malayattur Reserve, though I am of opinion that this area can be increased by at least another 500 acres. But the area is somewhat remote; and unless a syndicate or a big concern with sufficient capital takes it up, it may not be possible to improve the land. The slopes of the hills can also be used for the cultivation of tea and altogether an area of about 5,000 acres can be made available. So far as the Forest Department is concerned, they will not raise any objection with regard to the disafforestation of this area. If more lands are required for paddy cultivation it is for the people to go in for this land. The Government are particularly anxious with regard to the extensive cultivation of paddy and they are doing whatever they can in this direction. The Economic Development Board recommended the appointment of a special Engineer for irrigation. But from what the Chief Engineer told us day before yesterday, it is seen that he had recommended to the Government the appointment of a supervisor for the purpose, but the Finance Committee seem to have disallowed it. If there is any impediment seen—

MR. T. K. VELU PILLAI (*Trivandrum* cum *Nedumangad*): Sir, I wish to get a ruling on a point of order whether it is open to the members on the official side to make references to what transpired in the Finance Committee.

PRESIDENT: He is not referring to anything that transpired in the Finance Committee, but he is only referring to the decision.

MR. T. K. VELU PILLAI (*Trivandrum* cum *Nedumangad*): I wish to know whether the official members are entitled, as a matter of right, to refer to the transactions of the Finance Committee.

PRESIDENT: Do you mean what took place at the Finance Committee or the decision?

MR. T. K. VELU PILLAI (*Trivandrum* cum *Nedumangad*): Even the decision.

PRESIDENT: The decision is a different thing. I will give a ruling on that point later on.

MR. R. DHANUKOTI PILLAI (*Conservator of Forests*): It is not also possible to—

MR. P. K. NARAYANA PILLAI (*Ambalapuzha*): Louder, please.

MR. R. DHANUKOTI PILLAI (*Conservator of Forests*):—to decide problems of this nature in one or two days. They are being taken up gradually, and the appointment of a committee, I think, will be superfluous. As matters stand at present there is a permanent committee—the Development Board—quite competent to tackle such questions and our friend Mr. Velu Pillai is also one of the members, and the

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Council has elected three more representatives to sit on it. If any more suggestion has to be brought in, it is welcome to them to do so.

MR. PAUL V. DANIEL (*Agastisvaram*): At the outset, I feel bound to congratulate Mr. Parameswaran Pillai on the readiness with which he satisfactorily answered the questions that were put to him from this side of the House.

The resolution now under consideration is, of course, an important one. The mover has brought it with a noble object. Everything possible must, indeed, be done by the Government to develop agriculture. But, to me, it appears that the Government are doing their best in this direction and that we should be particularly grateful to the Government for this. The Government are aware of their serious responsibilities and they are doing their best to help the agriculturists wherever and whenever possible. The starting of the Agricultural Department, the creation of the Economic Development Board, the appointment of Agricultural Chemists and Entomologists, the opening of fruit farms, paddy farms, manure depôts, agricultural schools, and veterinary hospitals, the special works that are being done for the Department of Agriculture by the P. W. Department, the interest taken by the Government in agricultural loans and co-operative societies—these and several other things will clearly indicate the immense work done by the Government in this important direction. I think, it is, under the circumstances, advisable to wait some time more to see what these agencies will be able to do for us. Our men who are really interested in agriculture and in the prosperity of our State are doing the work and I hope they will be able to devise some means to develop agriculture in every way possible. In this connection, permit me, Sir, to make the following observations.

Reference has been already made by some of the previous speakers to the work of the Forest Committee. Most of the members of the committee, including myself, had the privilege of inspecting the royal trees standing within registered lands and the reserves in some of the northern taluks. The first impression created was that there has been some mistake somewhere in registering away many extensive and otherwise useful blocks of land. Apart from the fact that royal trees are mostly found in registered lands and the lands mostly registered are those most suitable for the growth of royal trees we find here and there large tracts of registered lands lying neglected and uncultivated. As rightly observed by my friend Mr. T. K. Velu Pillai, the owners of these lands are not justified in allowing these lands to remain entirely uncultivated. They are under an obligation to cultivate them. The Government should see to it, and if they fail to do so, such lands should be entrusted to persons capable of and really interested in cultivating them. The owners may be given a certain proportion of the net income. Hereafter the registry of lands within reserves should be, as far as possible, discouraged, and, wherever and whenever done, should only be done with much forethought, care and caution.

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[Mr. J. John Nidiry.]

MR. J. JOHN NIDIRY (*Changanachery* cum *Minachil*): Sir, the improvement of paddy cultivation in Travancore is an all-important subject and, as such, I think every one of us who are assembled in this hall must take a special interest in the matter, and, I am particularly glad that my learned friend Mr. Kochukunju Pillai has emphasised its importance by bringing such an important resolution as this. Of course, his speech has brought to us several important points which require special consideration at our hands and at the hands of the Government.

Then the next question is whether a separate committee should be appointed for the desired object. My humble submission in this respect is that a previous committee, which was appointed for a subject which is very nearly connected with it, and its advice have made me despair a little of the success of such committees. I may refer to a recent committee and its workings, the committee which was appointed for throwing open for cultivation certain swampy areas from forests. The conclusions or the proposals made by this committee, I might mention, have been proved to be impracticable, and I am very sorry that I cannot agree with their proposal as a practical solution for advancing the cultivation of swampy areas in our forests.

Another point which suggests itself to me is that the work may be done by a special reference to the standing committee of the Economic Development Board, which was recently created by us in an improved manner. The present Board consists of members with, I believe, a non-official majority, and four of them were elected by this very House, and, as such, I am sure our representatives in that Board will take special interest in matters like this, especially after this resolution is discussed in this Council. At present, we may be satisfied with a special request to that Board that they should, if possible, visit the several parts of the areas which require their visiting and submit a special report which is desirable for the improvement of cultivation. I may also say that that Board consists of experts such as the Director of Agriculture, the Director of Industries, the Conservator of Forests and others who will give proper guidance. Under their guidance I think we could get enough directions and suggestions, and, in case of any need, my submission is that the help of such experts be first resorted to before a separate attempt is made.

Again there has already been a cry in the State that we are having too many committees for all manner of things, and the present Government is alleged to be a Government of committees, and as such I should think we should not go in for committees unless there is a pressing necessity for them. Though I am not in favour of creating committees, I fully agree with, and endorse the view of, my friend that it is an all-important subject and that every attempt should be made to improve paddy cultivation in the State. I think that we may refer the whole matter for the present to the Economic Development Board and request them to give a most important place to this subject when it comes under their consideration.

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MR. T. LAKSHMANA PILLAI (*Nominated*): I have to submit that the subjects embraced in the purview of this resolution fall exactly within the jurisdiction of the Director of Agriculture. I am far from underrating the importance of the matters brought to the cognisance of the Government through this resolution. While fully acknowledging their importance, and while I regard with admiration the thoroughness with which the mover and some other friends, like Mr. Kumara Pillai, have studied and explained the various aspects of this question, I yet think that these questions have to be dealt with in the main by the Director of Agriculture, assisted by the Economic Development Board. If it is thought necessary, the hands of the Director may be further strengthened, so as to enable him to tackle these problems with thorough success. I do not therefore oppose the resolution, but have to propose that the question be formally referred to the Director of Agriculture for his suggestions and eventual solution, without a separate committee being created for the purpose.

MR. K. DOMINIC TOMMAN (*Peermade* cum *Devicolam*): I have great pleasure in supporting the motion of Mr. Kochukunju Pillai; for no one can deny the importance of the subject he is trying to tackle. The problem as to how to make a country self-contained and self-supporting in the matter of its staple articles of food is by far the most important subject which the administration of a country, the representatives of the people and the general public have to face. I gladly recognise that the Government of His Highness the Maha Raja have of late years been giving tangible proof of a growing realisation of the importance of this question, and various more or less useful measures are either being taken or are in contemplation.

But it often happens that the benevolent intentions of the Government are either frustrated or deprived of a considerable portion of their usefulness by some stipulations which a correct comprehension of all conditions would either have modified or removed altogether. I am not blaming the Government. The Government, on whom devolve the duty of having to take up simultaneously a thousand and one different subjects cannot be expected to devote, to any one problem or question, the time and the attention necessary to understand it in all its aspects, and devise measures which will be unexceptionable from every conceivable standpoint. Therefore the advice and co-operation of a committee of the kind contemplated by Mr. Kochukunju Pillai may be of the greatest possible help.

As an example I may be permitted to refer to the proposal to render available, for paddy cultivation the swampy tracts within the reserved forest area of the estate. This is a concession for which the people have been clamouring for years, and for the granting of which, though after a great deal of hesitation and departmental abstraction, we cannot be too thankful to the Government. But I am afraid that the condition which it is the intention of the Government to impose in this connection may nullify all the advantages of this generous concession. For I understand that Government propose to register the lands under the proposed colonisation scheme. Whatever may be the advantages of the scheme,

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[Mr. K. Dominic Tomman.]

so far as the lowlands and the opened-up tracts are concerned, I am firmly convinced that it is unsuitable to the utilisation of the swampy areas of forest tracts. The essence of the colonisation scheme is that an area is given to a company or a syndicate with the stipulation that the area should remain undivided and impartible and inalienable for twenty years, that those who take up such areas are liable for military service and that the land should be developed in accordance with the directions of the Agricultural Department. These stipulations must clearly have originated in the well-grounded conviction that it is only the introduction of sufficient capital, up-to-date machinery, and the adoption of scientific methods of farming that substantial progress in agriculture can be achieved and that this will be feasible only if the area remained as one undivided block and under unified control. Though all this is perfectly true in the case of such industrial crops as rubber, tea, etc., I am afraid that, to make paddy cultivation successful within the forest area, it is not enough if the members of the company or the syndicate entrust their share of the requisite capital to a manager and leave him to carry out the work through hired coolies. Each participant must live on the property, gradually level down and fill up the inequalities of his holding, and he must make drains and bunds and tend the crops in the proper manner at every stage till they are harvested.

PRESIDENT: The land colonisation scheme is not before the House.

MR. K. DOMINIC TOMMAN (*Peermade cum Devicolam*): I took it as an example. There are certain difficulties. The most important and indispensable part of the work is to keep off wild elephants, wild boars, etc., keeping awake night and day. Once a wild elephant enters a piece of land cultivated with paddy, all growing plants over a large area will be hopelessly trodden down or plucked up by the roots and destroyed, though the depredation of such wild beasts in a rubber or tea estate cannot do much irreparable damage. It is only the sleepless vigilance and the desperate valour of those who have staked their all in the enterprise that can save paddy crops from damages. A concern conducted by a manager with a paid staff and a number of hired coolies will not be an effective substitute for the personal care and attention of a number of individual owners living on their own holdings and doing their own work. Then again, the return for paddy cultivation is not so large as to be able to stand the increased cost of working through a company or a syndicate. It has also to be observed that the obligation of the military service attached to the concession will make the proposition altogether unacceptable to the class of genuine ryots who alone can make the scheme a success. Though it may be humiliating to have to make the confession, the truth may be faced that our agricultural population are not thirsting for military glory and adventures. Then again, people have not yet learned to have entire faith in the direction and control of our Agricultural Department. There is no harm if the members of the department are given every access to those areas and the opportunity of studying local conditions and offering advice. But if it is

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made obligatory that such advice has to be followed under pain of forfeiture of the concession of Government, I am afraid few persons will welcome the project. The absence of practical knowledge, the ignorance of local conditions and the temperamental defects of the officers concerned, may conduce to lend to a state of friction eventually resulting in open warfare, in which the trump card must necessarily be in the hands of those who have free access to Government.

In order to remedy these defects, I would suggest that, in the matter of swampy areas, if a number of persons come forward to utilise the whole available area in a given locality, each one of them undertaking to take up as many acres as he can up to a maximum limit, the area should be separately registered in the names of those individuals.

I have given the above criticisms of one of the schemes of Government for stimulating paddy cultivation as an example of the way in which the advice of a committee of the kind contemplated by Mr. Kochukunju Pillai may be made to co-operate with Government to co-ordinate in their beneficent activities. I have therefore great pleasure in according my hearty support to the proposition.

MR. P. K. NARAYANA PILLAI (*Amba'apuzha*): In view of the importance of the subject under discussion, I wish to make a few observations. I was also listening with very great pleasure to the answers of my sharp young friend, the Ag. Agricultural Director, Mr. Paramesvaran Pillai. The subject seems to be capable of further discussion and he seems to have handled the subject from the exclusive standpoint of the Agricultural Chemist. The two main defences set up by Mr. Paramesvaran Pillai to the question raised by my friend Mr. C. P. Kochukunju Pillai are the following. First of all, Mr. Paramesvaran Pillai says that the Agricultural Department is doing evrything that is now needed in connection with the intensive and extensive cultivation of paddy. In view of such enterprise on the part of the Agricultural Department, my friend seems to assure us that we need not bestir ourselves in the cause of paddy cultivation. Secondly, he assures us that there is a Development Board with its activities and asks why not trust the Development Board to do the needful in connection with this question. These are the two defences, that Mr. Paramesvaran Pillai has furnished to the motion now before the House. But my own apprehension is that the subject under discussion is one which requires consideration from a wider standpoint and should not be exclusively dealt with from the standpoint of the two agencies now mentioned by my friend Mr. Paramesvaran Pillai.

First, with regard to the question of the sort of work done by the Agricultural Department in regard to the expansion of paddy cultivation, it seems to be mainly confined to the application of the principles of two sciences, chemistry and biology. Mr. Paramesvaran Pillai has been telling us that they have not any eminent expert to tackle the question in regard to biology. That is all. Then it practically comes to this. The so-called enthusiastic application of the department to the question

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[Mr. P. K Narayana Pillai.]

under discussion seems to be confined to a series of experiments conducted probably in the laboratory of the Agricultural Chemist. Whether the question of paddy cultivation is one which should be left to centre round the operations in a laboratory is the question that I would raise for the consideration of the House.

Then with respect to the activites of the Economic Development Board, I would say that the Board have to pay much attention to a number of subjects, among which probably the improvement of agriculture seems not to overtop the attention that they have to bestow upon industrial development and commercial activity and that sort of things. Therefore, naturally, being an agency which is called upon to pay heed in proportionate importance to the various subjects entrusted to their tender mercies, whether it will meet with at the hands of the Board the sort of importance that this wider outlook calls for is open to serious doubt. If any representative of the Board comes forward and assures the House that, practically to the exclusion of other subjects, the Board will concentrate their attention upon the question of paddy cultivation till very satisfactory results are arrived at, I would have accepted the assurance. We have had a speech from one of the official members of the Board, the Conservator of Forests ; and except for the nebulous statement that the Board will take care of the subject, nothing of a definite kind was submitted to the House by Mr. Dhanukoti Pillai.

PRESIDENT: He mentioned a number of recommendations made by the Board and also something about the action taken by the Government thereon.

MR. P. K. NARAYANA PILLAI (*Ambalapuzha*): The recommendations are not sufficient in themselves.

PRESIDENT: He said the recommendations of the Economic Development Board were made after careful consideration.

MR. P. K. NARAYANA PILLAI (*Ambalapuzha*): Probably all the suggestions of the Economic Development Board have been exhausted.

PRESIDENT: The Economic Development Board is not dead.

MR. P. K. NARAYANA PILLAI (*Ambalapuzha*): Not dead. Mr. Dhanukoti Pillai seems to suggest that as much as is possible has been done for widening the scope of paddy cultivation.

MR. R. DHANUKOTI PILLAI (*Conservator of Forests*): I never said that we had exhausted the possibilities of widening paddy cultivation. It is still open to the Board, which has been newly constituted, to take up the question again.

MR. P. K. NARAYANA PILLAI (*Ambalapuzha*): That is all right. Much remains to be done by the Economic Development Board. It was at first a stronger body consisting of representatives from various parts of the State. In a stronger mood of its existence it could not do anything very substantial except to send forward recommendations.

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The expectation Mr. Dhanukoti Pillai seems to cherish, that it will in its attenuated form do better work, is not reasonable. Anyhow I am submiting one aspect of the question.

The question of the extension of paddy cultivation in the State clearly presents itself. Taking the example of my own taluk, comprised in the area described as Kuttanad by my friend Mr. Paramesvaran Pillai, there is a clear fact visible that as soon as you cross the Tottappalli lock, for a distance of four miles there is what is known as the Purakkad *kari*. It extends to not less than four miles and I presume that the distance from east to west is about 6 to 7 miles. On the whole an extent of about 30 square miles of land is in a condition of paddy field to some extent in appearance, but goes without real cultivation. That is one instance. The Department of Agriculture is going about analysing the soils. I do not deny that analysing the soil is a necessity and I do not ignore that question. But the deterioration of the soil in other parts of my own taluk has resulted not from the entire exhaustion of the fertility of the soil, as Mr. Paramesvaran Pillai seems to say, but owing to other causes. To ask people to purchase manure that would be required for cultivation upon small blocks and try to reap the benefits of such manure is a very easy lesson taught as a matter of theory. But as a matter of practice, let us see whether, owing to a variety of causes, for example, by the artificial deflection of natural streams and streamlets, and owing to the choking up of existing channels, lands have been deteriorating. That is an aspect of paddy cultivation where the Agricultural Engineer's assistance is needed. Therefore, I am submitting that there are various aspects of this particular question. Simply to entrust the question to the activities and exclusive care of the Economic Development Board is not sufficient. That is what appears to me. So an alround investigation of the question paying due attention to the lands yet remaining uncultivated and also paying attention to the deterioration of lands within living memory and the possibility of intensifying the productive capacity of the lands now being cultivated with paddy, is a matter deserving more than the routine attention that is now being paid to it by the Department of Agriculture or, for that matter, by the Development Board. I think it is in that spirit that Mr. C. P. Kochukunju Pillai has moved this resolution. If, as a matter of fact, there is going to be any assurance given by the Development Board that they will devote their particular attention to it in view of the paramount importance of the subject, for the time being I would think that my friend may be satisfied with such a prospect. As no assurance is forthcoming, I have to support the motion.

MR. K. C. MAMMEN MAPPILLAI (*Commerce and Industries, North*) : Sir, nobody can deny that during the last several years the Government and the Department of Agriculture have been devoting a very considerable degree of attention to the development of agriculture in the country. The tangible results of these labours may not be very appreciable, but the reason is not far to seek. We are now passing through what may be described as the seed-time in improved agricultural knowledge and practices. A great deal of spade-work has to be done before the

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[Mr. K. C. Mammen Mappillai]

labours of the department will begin to bear fruit in the general acceptance of the conclusion of the department and in the practical application of the lessons which have been taught by the department. Remembering that agricultural improvement on scientific lines is only a plant of yesterday and gathering together the various signs of progress which we can discern by carefully looking over the whole country and also giving due credit to the substantial activities of the Government and the department, I think that we are not justified in blaming either agency for the paucity of the results. In saying so, I do not mean to say that any visible result of the labours of the department is very impressive. I think it may take several years or even decades or generations if we go on at this rate before scientific and intensive cultivation, as it is understood in western countries, becomes a generally accepted practice in our country. Therefore I shall not deprecate carrying out any efforts to speeding up the process of agricultural reform and improvement in the country.

Moreover the object which Mr. C. P. Kochukunju Pillai has in view, *viz.*, the making of our country self-sufficient in the matter of food supply, is one that is deserving of the acceptance of all of us, whether on the official side or on this side. The two obvious methods of increasing the food supply of our country are extending the area under cultivation and intensifying the methods of cultivation in lands already under cultivation. With regard to extension, I think, there is very little scope for it. All the *cherikal* lands which are available for registry and which are fit for paddy cultivation have been registered except a few patches here and there. Another source of extending paddy cultivation is reclaiming portions of the Vembanad lake. I do not exactly know the extent of the reclaimed area of the Vembanad lake. I think it is more than 50,000 acres. The general impression about this is that most portions of the lake fit for paddy cultivation have already been reclaimed. Then, as regards *kari* lands, they also have been mostly brought under cultivation and there is not much of it left unappropriated. What remains therefore is to concentrate our attention on intensive cultivation. The only parts of our own country where intensive cultivation is being practised are South Travancore and certain restricted parts of the Quilon Division such as Onattukara. In all other places, the method of cultivation is extremely unsatisfactory for several reasons. The method of ploughing and manuring is most primitive. In fact very little ploughing worth the name is being practised. We have got a few puny-sized bulls which are an apology for draught bulls, and which are driven over these fields so as merely to scratch the surface. In the case of wet lands, people look to the deposit of silt brought by the monsoon and the floods as the only source of manure. I am sure that something more could be done in this matter by the Agricultural Department. Mr. Kochukunju Pillai says that what we want is an elaboration of new theories of agricultural practice. I do not agree in this view. Most of us know what is to be done for the improvement of agriculture,

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No doubt it may be desirable to know more of the secrets which nature keeps concealed in her bosom. But let us first of all carry out the lessons which are already known to us. Any dispassionate observer of the methods of cultivation in Central and North Travancore must come to the conclusion that, either owing to lack of organisation, or want of capital, or want of knowledge, or by a combination of all these causes, the yield from the land is not now a half or even a third of what it could be easily made. The lack of knowledge is not the sole reason or even the chief reason for this deplorable state of things. For every ryot knows that if the land could be ploughed more deeply and thoroughly than he now does, and if he applies an adequate quantity of ashes, cow dung, and other common manures whose utility he knows very well, the return from his land could be greatly increased. Proper irrigation is another difficulty. He knows that if he could be helped to lift into his fields the small quantity of water that he might need from the perennial streams and canals running close by, he could increase his income by 50 or even 100 per cent. These are some of the most outstanding reasons why cultivation in North Travancore and Central Travancore is unsatisfactory. I do not think that it will be possible for any committee of this House to discover any defects which are not now known. I should think that the insufficiency of the capital resources of the people is the one chief obstacle that retards the improvement of cultivation in North and Central Travancore.

PRESIDENT: Your time is up.

MR. K. C. MAMMEN MAPPILLAI (*Commerce and Industries, North*): Just two minutes more and I shall finish.

PRESIDENT: Yes.

MR. K. C. MAMMEN MAPPILLAI (*Commerce and Industries, North*): If the Government would instruct the Director of Agriculture to take up some typical village, make a minute and exhaustive enquiry into the existing state of cultivation there, formulate definite conclusions as to possible developments, find out to what extent indebtedness, insufficiency of capital, ignorance, conservatism, absence of organisation, defective implements and other causes are standing in the way, and then with the co-operation of the Department of Co-operation, of the Irrigation Engineer and of the Revenue Department, try and bring about an all-round improvement in the methods of cultivation in the whole village, the tangible results that could be thereby obtained would go a long way to induce other people to follow these methods. The demonstrations conducted by the department at the present day are not really productive of the results that one could legitimately expect of them. Probably they may become better hereafter. But at the present time, one cannot honestly say that they are of any great practical value.

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): May I ask the member whether he can point out some of the defects he has found?

MR. K. C. MAMMEN MAPPILLAI (*Commerce and Industries, North*): The Director has only to look at the trees in the Alleppey

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[Mr. Joseph Panjikaran.]

cocoanut farm. I do not want to say anything unkind of the department. They are working under very great difficulties. But I must say that this demonstration could have been conducted better.

MR. P. K. NARAYANA PILLAI (*Ambalapuzha*): May I know what has become of the paddy field demonstrations?

MR. K. C. MAMMEN MAPPILLAI (*Commerce and Industries, North*): The paddy demonstration was conducted in my own field. And I have to say I did not derive any substantial benefit from it. Lack of capital it is that chiefly militates against the improvement of paddy cultivation on *punja* lands. I did not want to say anything about my own experience; but since Mr. P. K. Narayana Pillai put that question pointedly to me, I could not keep silent.

MR. JOSEPH PANJIKARAN (*Shertallai*): Sir, I support the resolution moved by my friend Mr. Kochukunju Pillai. To my mind, the most important part of the resolution is concerned with the investigation of the causes of the failure of crops. About that portion of the resolution, I do not think that the official member in charge of this particular subject has had much to say. He said very much in his own speech about other things and he answered the different questions put by members about the analysis he has made of the different kinds of soil. But the most important part of the resolution is concerned with the investigation into the causes which lead to the failure of crops in the country. Yesterday Mr. Kumara Pillai very graphically described the deplorable condition in South Travancore owing to the mismanagement of irrigation works, owing to the disappearance of green manure and other causes. I might tell the House that in North Travancore the condition is not much better. For instance, let us take the Kuttanad *punja* cultivation. The crops fail very often. Coming to my own taluk, I may point out that the *kari* lands, which have been referred to by the member in charge, are, to my knowledge, very productive lands. But the fact is that the crops more often fail in that part of the country. There is the *Antakara azhi* to be attended to with scrupulous punctuality. If not, sowing will be put off for two or three weeks. The putting off of it for two or three weeks would be fatal. There is again another important bund at Pullanchira. That is a bund which is the boundary of about three thousand *paras* of paddy land. That also is not being attended to, and there also the crops fail. It is such things that the committee that is now sought to be appointed should look into. Moreover, there are other causes which certainly the Agricultural Department does not take care of. This morning I got a telegram from Shertallai. I will read it:

> Prevent Turavur paddy crop destroyed. Request Dewan immediately sanction cattle pound. Already petitioned.
>
> KRISHNAN KARTA,
> *Turuticad.*

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He is a very respectable gentleman.

PRESIDENT: The Dewan has already sanctioned it.

MR. JOSEPH PANJIKARAN (*Shertallai*): I am very glad to know that the Dewan has already sanctioned it. The appointment of a committee to point out these evils and to devise methods whereby improvements may be effected will be very useful. The analysis of the soil is very important and has to be done by the Agricultural Chemist. But these and other things that have to be attended to can be done by the committee and methods may be suggested for improving them. So I support the resolution.

MR. K. PARAMESVARAN PILLAI (*Tiruvalla*): Sir, the question raised by Mr. Kochukunju Pillai is a very important one and deserves the very earnest consideration of this House. An examination of the figure showing the area of the paddy lands under cultivation furnished by Mr. Paramesvaran Pillai will show how vast the problem is. Mr. Krishna Aiyar asked Mr. Paramesvaran Pillai, while he was speaking, whether 10 cents did not represent the area, per head of population, under cultivation. Mr. Paramesvaran Pillai replied that it was 6,75,000 acres which shows that the area under cultivation per head of the population is something like 15 cents. It is a little over a *para* of paddy land. Taking into consideration the average yield of paddy in Travancore, I do not think that a *para* of paddy will ordinarily yield more than 8 *paras* of paddy. There are fields where it will be much more. There are also places like Kuttanad where once in two years you get one or two *paras* of paddy more—*once in two years*! So that, it appears to me, that the average yield cannot be more than 8 *paras* of paddy per head. If we take into consideration the quantity required for the consumption per head, we shall find that that will be not less than at least 20 *paras* per head, taking into consideration babies, children and adults. Therefore, we see that the production of paddy in Travancore is not sufficient even to feed 40 per cent. of the population of the State; and so, for the consumption of the remaining 60 per cent. of the population of the State we have got probably to import paddy from outside. This shows how vast the problem is and what careful attention it requires. From the attitude taken by the Conservator, I can see that there is very little scope for extensive cultivation in the country. Almost every piece of available land has been brought under cultivation and he tells us that there are very few acres left for cultivation except perhaps swampy areas in reserved forests. If that is so, we have to consider how far intensive cultivation is possible in Travancore.

So far as intensive cultivation is concerned, it appears to me, Sir, that Kuttanad, with which I am connected intimately, affords very great facilities for intensive cultivation. There is a very large area of land, but the major portion of it, except these portions which lie on either side of rivers, is cultivated only in alternate years. And even in these years there is a very poor crop. If it will be possible, at least by proper manuring and scientific cultivation, to cultivate those paddy

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[Mr. A. Govinda Menon.]

lands every year instead of in alternate years, I think we can produce a much larger quantity of paddy than at present. In those places, instead of the yield increasing, I can say from personal experience that the yield is somehow or other decreasing. It may be due to deterioration of lands. It may be due to improper cultivation of paddy or other causes. But I find that the tenants from those areas ask for reduction of rents from year to year. If it is six *paras* of paddy this year, they will say next year that it should be reduced to five *paras*. This is going on steadily, and I am afraid if it goes on steadily for ten years, we shall have to forgo all our revenue and give something to the tenants in addition for cultivating the lands. That shows how the productive capacity of land in those places is deteriorating year by year. These things show that some attention deserves to be paid to this matter and I am very glad that the matter has been moved in this Council by Mr. Kochukunju Pillai. I have great pleasure to support his motion.

MR. A. GOVINDA MENON (*Alangad* cum *Parur*): Sir, after all the diagnosis made by many of my friends here, especially by Mr. Mammen Mappillai whose diagnosis of the northern ryots cannot be made better by me, I do not think I need dwell upon the matter any more. The activities in the direction to improve agriculture have been more or less conducted by three distinct departments—by the Agricultural Department, the Economic Development Board and, to some extent, by the Forest Department also. The difficulties in the matter are that there is nobody either in the Secretariat or outside it who can co-ordinate the activities of these departments. The efforts that are actually made at various times by distinct bodies have not been given a shape to. The department that deals with agriculture in the Huzur Office has to deal with other subjects and cannot give it that attention which the subject requires and cannot evolve the sort of policy which the subject deserves. It is only from this point of view that the creation of a committee can be justified. Mr. Mammen Mappillai's opinion on this point conflicts with his criticisms of the existing defects in the working of the Development Departments and cannot therefore be accepted. In his own words, there is absolutely no need for appointing a committee. Unfortunately myself and many others in this Council are of a different opinion. We know the defects. Because there are no proper facilities, we cannot work. There is no good in explaining away all these things. The one thing we want is, how to get rid of poverty, how to make the man spend his own money and make him produce more where there is almost little or no production at present. Now, in North Travancore, the four main defects are, (1) want of irrigation facilities, (2) want of manuring, (3) bad or rather antiquated agricultural implements, and perhaps (4) also, want of good breed of cattle. These are the four defects under which the agricultural population in North Travancore, especially Alangad, Parur, Kunnatnad, Muvattupuzha, Minachil and Todupuzha taluks, are suffering from. In these taluks, even when defects are remedied, I do

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not think there will be an end to our difficulties. Our work is to make those people remove those defects themselves, by providing them with sufficient funds aided by Co-operative Societies and the Agricultural Department under the Agricultural Loans Regulation and even by giving selected classes among them bounties as the Government have done in England. If the last kind of help is necessary here also, I think we are bound, in the present state of affairs, to extend the same, even at some sacrifice. For these reasons a committee is demanded and I think we should be only doing our duty if we were to accede to the resolution moved by Mr. Kochukunju Pillai.

MR. T. M. CHIDAMBARATANU PILLAI (*Kalkulam cum Tovala*): Sir, I heartily support the motion.

நம்முடைய நாட்டில் ஜனங்களுக்கு முக்கியமான ஆகாரம் நெல்லை த்தவிர வேறொன்றுமில்லை. இவிடத்தில் இப்போது விளைகிற நெல்லும் அன்னியநாட்டிலிருந்து வருத்தங்கூடியதும் கொண்டு நிகயாமல் மரச்சினிகொண்டு காலம் கழித்துவருகிறார்கள். அதற்கும் சில கெடுதல்கள் உண்டாயிருப்பதால் ஜனங்களுக்கு கஷ்டம் அதிகரித்து கொண்டே வருகிறது. அதிலால் நெல் கிருஷியை எல்லாவழிகளாலும் அபிவிர்த்தி செய்ய செப்பவும் அவசரப்பட்டிருக்கிறது. அதற்கு அடியில் சொல்லுகிற சௌகரியங்கள் முக்கியமாகவேண்டும்.

(1) தண்ணீர்.
(2) உரம், குழை.
(3) உழுவுசாதனங்கள்.
(4) ஆடுமாடு.

தண்ணீர்பாய்ச்சலுக்காக போதுமான வெள்ளம் கெட்டும்படி குளங்களை மராமத்து செய்துகொடுப்பதோடு மேல் குளங்களை வீர்க்கவோ, பதிர்செய்து கொடுக்கவோ கூடாது.

உரம். இதற்க்கும் உழுவுக்கும் ஆடுமாடுகள் முக்கியமாக வேண்டும். மாடுமேச்சலுக்கு இடமில்லாமல் விவசாயிகள் ஆண்டுதோறும் புதிதாக மாடுவாங்கி நஷ்டமடைகிறார்கள். அதற்கு மேச்சலுக்கு கவர்மென்றிலிருந்து ஸ்தலம் வாங்கிக்கொடுப்பது அசாத்தியம். சௌகரியமுள்ள புறம்போக்கு ஸ்தலங்களை பதித்து கொடுக்காடல் மேச்சலுக்காக உபயோகப்படுத்தும்படி செய்து கொடுக்கவேண்டும். அன்னியநாட்டிலிருந்து அதிகம் ரூபாய் கொடுத்து உரம் வருத்தி கிருஷிக்கு கொடுப்பதைவிட இவிடத்தில் கிருஷிடிப்பார்ட்டுமென்றில் ஏர்ப்பாடு செய்து உரம் உண்டாக்கி கொடுக்கலாம். இவிடத்திலுள்ள புண்ணாக்கு, எலும்பு, மீன், இவைகளை அன்னியநாட்டுக்கு விடாமல் செய்தோ அல்லது தீருவைகூட்டியோ இவிடத்தில்தானே பக்குவம் செய்து உரத்துக்காக சகாயவிலைக்கு கிருஷிக்காரர்களுக்கு கொடுக்கவேண்டும்.

குழை. புறம்போக்கு ஸ்தலங்களில் குழைமரங்கள் வைத்துபிடிப்பிக்க வேண்டும். ஏர்ப்பாடு செய்துகொடுக்கவேண்டும். குழைக்காக டிப்பார்ட்டுமென்றிலிருந்து கொழுந்து, அலை, முதலான வித்துகள் வருத்திகொடுக்கவேண்டும்.

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[Rev. Fr. Kuriakose Vettikappalli.]

கிருஷிக்கு நாட்டுக்கு சௌகரியமாக எல்லாகாலங்களிலும் உழவு சாதனங்கள் எடுத்துக்கொள்ள அனுவதிக்கவேண்டும். தன்னாட்டு மாட்டுக்கு தீருவை இல்லாமல் மலகளில் மேய்ந்துகொள்ள அனுவதிக்கப்பட்டிருப்பது பேரல் ஆடுகளுக்கும் அனுவதிக்கவேண்டும். கவர்மென்றுக்கு ஒரு ஆதாயமில்லாத்த Minor Forest களை மேய்ச்சலுக்காக ஒழிந்து கொடுக்கவேண்டும். British ஆடுமாடுகளுக்கு தீருவை கூட்டி இருப்பதை குறைக்கவேண்டும்.

கிருஷிக்காறர்கள் தங்கள் மாடுகளை மேய்சக்கொள்ள சௌகரியமான இடமில்லாமல் அவைகள் சீணித்து உடன்தானே இறந்துபோகிறது. ஆண்டில் இரண்டுதடவை உரம், குழை வாங்குவதுபோல் மாடுகளும் வாங்கவேண்டியதிருப்பதால் ரெம்பவும் நஷ்டமேர்ப்படுகிறது. கிருஷிபை வர்த்தனை செய்யவேண்டுமென்று கவர்மென்றிலிருந்து அதிகம் முதல் செலவுசெய்து அனேகம் இடங்களில் பரிசோதனை பண்ணைகள் ஏர்ப்படுத்தி இருக்கிறது. அவைகளில் செய்துவருகிற எல்லா வேலைகளுக்கும் ஆதாயத்துக்கும் விபரமான துண்டு பத்திரிகைகள் அப்போதைக்கப்போது அச்சிட்டு கிருஷிக்காரர்களுக்கு கொடுக்கவேண்டும்.

முக்கியமான கிருஷிஸ்தலங்களில் ஒரு Agricultural Exhibition நடத்தவேண்டும். அதோடு கிருஷிக்காரர்களுடையும் டிப்பார்ட்டுமென்றினுடையும் அபிப்பிராயம் தெரிவிக்கவேண்டும். சர்திருத்தல்கள் செய்துகொள்ள ஒரு வரிடத்தில் ஒருதவணையாவது ஒரு District meeting கூடத்தப்படவேண்டும். பரிசோதனை தோட்டங்களில் ஒரு காய்ச்சை தோட்டம் ஏர்ப்படுத்தவேண்டும். அதில் கலப்பை, வித்துகள், நோய்கள், உரம் இவைகளைக்கண்டு அறிந்துக்கொள்ள சௌகரியங்கள் இருக்கவேண்டும். இவைகளை நடத்துவதர்க்கு Officials and non-officials சேர்ந்த ஒரு கம்மிற்றி ஏர்ப்படுத்தவேண்டியது மிகவும் ஆவசியம்.

Rev. Fr. KURIAKOSE VETTIKAPPALLI (*Todupuzha cum Kunnamad*): Sir, any scheme or suggestion towards the improvement of our paddy cultivation and towards the making of our paddy supply sufficient for the country should be quite welcome, because the sad experience we had during the great war crisis has taught us that we should rely upon ourselves for our food supply. But whether a committee as contemplated by Mr. Kochukunju Pillai is the proper step to be taken at present is a matter on which I have serious doubts. As Mr. Paul V. Daniel pointed out, the Government are doing a great deal for the improvement of extensive and intensive paddy cultivation, both through the Agricultural Department and through the Economic Development Board and also through the many committees that have been recently appointed in different taluks to consider the question of the conversion of swampy areas in reserved forests for cultivation. So I think, at this stage, it would be superfluous to support or to recommend a more general committee for the same purpose. We should wait and

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see what these agencies that are at work now are doing for the improvement of agriculture, and if they prove, after a sufficient period of time, to be unsuccessful in their attempt, I think, then it would be time for us to devise further means. At present, I am at one with Mr. Paul V. Daniel in saying that we should wait and see what these agencies can do, whether they would be successful in their work or not.

MR. S. SUBRAHMANYA KARAYALAR (*Pattanapuram* cum *Shencottah*): Sir, as to the importance of agriculture no discussion at all is necessary.

"As unto the car the axle is
So unto the world the farmer."

Tiruvalluvanayanar says:—

"உழுவார் உலகத்தார்க்காணி."

To say in plain words: 'the farmer is the cause of other people's existence in the world'.

I quite support the resolution brought forward by my learned friend, Mr. C. P. Kochukunju Pillai, in principle; but I do not agree with him in the formation of a committee to consider the question of paddy cultivation in the State and to investigate the causes of failure of crops and to suggest methods by which both intensive and extensive cultivation may be improved.

My friend wants a committee to investigate the causes of failure of crops. In my opinion no committee is necessary to find out the cause of failure of crops. Paddy cultivation in Travancore, as a matter of fact, generally does not fail for want of water. In Kuttanad, *i. e.*, in Ambalapuzha, portions of Kottayam, Changanachery, etc., the failure of paddy cultivation is entirely due to the overflow of water by breaches in bunds. In other taluks, failure of paddy cultivation for want of water is very rare. I do not submit that there is not failure of paddy cultivation. There is occasional failure of crops but this is not entirely due to the failure of rain, for we are blessed with two monsoons. If we can only arrange to store water during rainy seasons there can never be failure of crops in Travancore for want of water. In this connection, I have to submit that the natural conditions obtaining in Travancore will not permit the construction of big tanks to store water therein, for the lands are uneven and when water is collected in tanks of higher level, and when lands are irrigated by the same tanks on a merely lower level, there will be ample percolation of water and the tanks will be left empty before a few days' lapse after the rain; and the soil in all the elevated taluks being generally made up of loose sand they are unable to hold water. By submitting these facts I should not be misunderstood as opposing the construction of new tanks and the restoration of existing tanks.

There are several rivers in Travancore, and none of them are used for paddy cultivation, except one or two rivers in South Travancore and two in Shencottah. Many of them are so deep that it is absolutely impossible to construct anicuts and use their water for paddy cultivation; and

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[Mr. S. Subrahmanya Karayalar.]

if anicuts are constructed we have not wide level tracts to bring under paddy cultivation. Failure of crops in Travancore being a rarity, except during unusual drought, let me examine whether intensive and extensive cultivation of paddy is possible so as to make the total outturn of paddy in Travancore self-sufficient.

For intensive cultivation, we require the following essential ingredients. The farmer should not be a beggar. He should never be under the iron clutches of Shylocks. He must have the necessary agricultural implements and sufficiently healthy bulls to plough his lands at the proper time. He must have his own seeds. He must have sufficient facilities to visit his lands as often as possible. I am strongly of opinion that many farmers are without good bulls and seeds of their own, and good roads for agricultural purposes are wanting in many places.

The next important thing for intensive cultivation of paddy is that lands in the same blocks should not be uneven; for when lands are uneven there is no use of manuring them as the manure is apt to be washed away. The land should be impervious and should not be porous, for the latter land will not retain the manure. And I need not submit that all lands in mountainous tracts which form the major portion are loose and porous, and so unable to retain the manure.

For intensive paddy cultivation, there should be very little rainfall in the area under cultivation. The yield will be very poor in places where there is continuous rain from the time of sowing up to the time of harvest. In Travancore, for example, the sowing operation will be over before the end of Medam and the rain begins in Edavam and continues almost up to the end of Karkadakam when harvest begins, and consequently the lands do not get sufficient heat for proper development. We can invariably see all over Travancore that long before paddy shoots out, the tender growths, not being strong, fall down, and the result will be that such fallen growths will not yield any paddy at all. For good outturn again, the constant supervision, of the owner of the land is of paramount importance, and I am sure, Mr. Kochukunju Pillai will not deny the fact that many of our wealthy landlords scarcely visit their lands and he will not deny the fact that in his own taluk the ridges of paddy lands are so very narrow as not to admit the passing of a single individual.

உடையவன் கண்ணேணடம் பயிர் அழியும்.

If the owner does not supervise his own lands, ruin is assured. Another important thing for intensive cultivation is that the soil should be sufficiently made powdery and sufficiently heated before the seeds are sown. On account of constant rain in Travancore, both are impossible.

For intensive cultivation, lands should be level, the owner's supervision is highly necessary, and the option of watering the land should be entirely under the control of the owner, so as to enable him to decide when

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to water and when not. The intensive productive capacity of the soil in South Travancore has become fruitless because of the excessive percolation of water into old lands from the newly cultivated lands at the elevated tracts. Intensive cultivation in Travancore will not be possible, as in the neighbouring districts of Tinnevelly, Madura and Trichinopoly, which are in the same latitude, because the lands in these latter districts are level lands and they are supplied with water from Travancore and Malabar. If lands are properly levelled, ploughed, manured and watered only when water is required, they may be made to yield more, and these are works to be done by the owners of lands and not by the Government. Of course, the Government may be requested to work for the proper supply of water where water is wanting and to provide sufficient drainage where there is much water.

As for extensive cultivation, we have not proper lands for the same. Of course, there are swampy areas in mountains ; but to make them fit for paddy cultivation is a very difficult task, and even when they are made to yield, the gathering of the crop is exposed to several dangers, *viz.*, destruction by wild beasts and birds. Only big capitalists can venture to undertake such works and they are rare in Travancore. To extend paddy cultivation to places under water in the Purakkad *kari* mentioned by some of the members, I have my serious doubts as to the drainage question. If all lands under water are brought under paddy cultivation without solving the important question of drainage during heavy floods, the fate that the salt licensees in Travancore had during the last cyclone will be repeated when lands are reclaimed from water in Ambalapuzha and other taluks. Thus it will be seen there is not much scope for extensive and intensive cultivation of paddy in Travancore owing to natural disadvantages.

Under the above circumstances, I beg to submit that a committee of the type suggested by Mr. Kochukunju Pillai is unnecessary as it will not end in any good results. What I beg to suggest is the following. Each member on this side of the House should lead the proprietors of the lands in each taluk and form agricultural associations with the Tahsildar as the President and the association should meet in the head-quarters at least four times in the year, and they should find out the various means of improving their lands so as to make them fit for intensive cultivation, and also find out lands in their own taluks fit for paddy cultivation, and submit their proposals for proper examination and help from the Government, and the proposal should go through the revenue collectors of each division to the Land Revenue Commissioner first, and finally to the Government. District associations may also be formed with the Dewan Peishkar as their head and two members from each taluk association may be selected for forming the district association, and the district association shall be made ordinarily to meet twice a year to concert measures affecting the whole division.

MR. A. HOOGEWERF (*Nominated*): Is the committee suggested by Mr. Kochukunju Pillai not intended to make suggestions to the Government ?

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[Mr. C. P. Kochukunju Pillai.]

MR. S. SUBRAHMANYA KARAYALAR (*Pattanapuram* cum *Shencottah*): Of course it is intended to make such suggestions. But it is not necessary in the light of the facts that I have suggested.

MR. T. K. VELU PILLAI (*Trivandrum* cum *Nedumangad*): I wish to know from Mr. Subrahmanya Karayalar whether he has made, in the shape of a publication, any contribution to the science of agriculture.

MR. S. SUBRAHMANYA KARAYALAR (*Pattanapuram* cum *Shencottah*): That does not arise here.

MR. T. K. VELU PILLAI (*Trivandrum* cum *Nedumangad*): It may not. I want only information.

MR. C. P. KOCHUKUNJU PILLAI (*Kottarakara* cum *Kunnattur*): Sir, I am glad to find that the principle of my resolution has been accepted by all without any exception. The only point of difference between myself and three or four members on this side of the House is that the appointment of a committee, as suggested by me, is not necessary.

Mr. Paramesvaran Pillai, the official member, said that it was not necessary to appoint a separate committee to investigate the lines of paddy cultivation I suggested. He further told us that the Agricultural Department was doing what I wanted and that the question was also taken up by the Economic Development Board, and that they had prepared a scheme and sent it up to the Government for consideration. I am not satisfied with what they have done with regard to this question. The Agricultural Department has got multifarious duties to attend to. He has told us also that the Agricultural Department has tried to supply manure which, as I have already stated in my first speech, is very costly, and as such our poor ryots are not in a position to purchase. He then referred—and I also referred to it—to the question of the supply of manure. The Government have themselves changed their opinion in the matter. Then again, he said that he had analysed certain soils in certain places of the country. He also spoke of the Economic Development Board. The Economic Development Board sat once or twice to consider the question and drafted a scheme. My question is whether the members of the Economic Development Board have gone to the several taluks of the State and ascertained directly from the people and have inspected the several *elas* or fields in particular localities in order to ascertain the defects that exist in the paddy cultivation in those taluks. They have also not ascertained what the remedial measures that have to be suggested are. My case is that the whole question of paddy cultivation has to be taken up by a separate body who have to sit exclusively for the purpose of investigating the various aspects bearing on that question. The question pointed out by Mr. P. K. Narayana Pillai has to be gone into and it is not within the scope of the Agricultural Department or the Economic Development Board. The Economic Development Board have no time to devote all

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its attention exclusively to this question. They have also very many other duties to bestow their attention upon. So, now, as to what has been done by the Economic Development Board and the Agricultural Department I will only recall to my memory what has been said by Messrs. Mammen Mappillai and P. K. Narayana Pillai. Mr. Mammen Mappillai has expressly and boldly laid down before the House the fact that the demonstration of paddy cultivation made in his own land was not at all satisfactory. On the other hand, it has not been to the benefit of the ryots at all. It is not merely the want of manure that is the cause of the failure of crops. The question has to be gone into in a more detailed manner. Of course, I have already dwelt upon this question in my first speech and I do not want to repeat that again.

Then again, the very fact or circumstance that only ten or fifteen cents of land are available for the use of each man in the State strongly proves the absolute and immediate necessity of a committee being appointed to deal with the whole question on the lines that I have already suggested. Mr. Karayalar has delivered a long speech in which he has referred to the nature of paddy fields in *his* taluk as well as *mine*. I assure Mr. Karayalar that the condition of the paddy fields in my taluk is so deplorable that it is due to that also that I have been forced to move such a resolution in this Council. We are suffering very much on account of the poor condition of paddy cultivation in our taluk. I know that the irrigation work with regard to my taluk is entirely neglected. I have pointed out the fact to the Dewan himself once. There is a one-sided canal for an *ela* which covers about 2,000 or 3,000 acres. I have not known whether the Agricultural Department or the Economic Development Board have considered anything about that canal at all. If we examine the question in this way, we will find that the irrigation canals and tanks of the different parts of the country are in a very deplorable condition and I am sure even the members who did not join with me in the appointment of a separate committee to deal with this whole question will certainly agree with me. I am sure Messrs. Daniel, Lakshmana Pillai and Nidiry who accept the principle of my resolution, but say that a separate committee need not be appointed, will also agree with me if they come to know of the very deplorable condition of the several irrigation tanks and canals of the State. I know there have been many representations in the Sri Mulam Popular Assembly for the appointment of a separate committee for the purpose. I think Mr. Khadir Pillai in the 17th session of the Assembly moved for the appointment of a separate committee to deal with this question. Sir, the Agricultural Department is doing something. I did not forget to mention that in my first speech itself. The Economic Development Board also considered the question once. That also I am not unaware of. But my point is that the whole question of paddy cultivation, how far it can be extended, and how far it can be improved, are matters that have to be looked into. It is for that purpose that I moved for the appointment of a separate committee.

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[Mr. A. Hoogewerf.]

Mr. Mammen Mappillai said that the question of improvement might be enquired into or investigated by deputing the Director of Agriculture or one or two Executive Engineers. I do not ignore their presence on the committee. Of course, they are the proper persons for the purpose. If any committee is to be appointed they are sure to be members of that committee. I do not want a committee excluding these persons. As a matter of fact, the committee should consist of experts like Mr. Paramesvaran Pillai, Dr. Kunjan Pillai and the experts of the Public Works Department such as an Executive Engineer or Assistant Engineer or even the Chief Engineer. I have absolutely no objection to having them as members of the committee. Along with them, some of the non-official members may or may not be added. My point is not with regard to the nature of the committee or the sort of members constituting it. I only want a committee specially deputed for the purpose of investigating the whole question of paddy cultivation. That is my position. All the members who did not speak in favour of a separate committee said, I think, that there must be a body of men to look into the question. I do not see why under such circumstances a separate committee should not be appointed. We have had a committee called the Scholarships Committee. We have had a committee for the Press. We have had another for the Workshops. These are matters which are much less important than the question now under discussion. I think it is only just and fair and reasonable for me to move such a resolution in this Council and to request my friends on this side of the House to accept my proposal and vote for me.

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): Sir, we do not come to definite conclusions merely after a chemical examination of the soil. We begin with the chemical investigation, and, after finishing that, we resort to field experiment. When we go to a particular area, first of all we survey the whole area correctly, and then collect samples of soils which we then analyse. We thus find out the defects in the soil and recommend suitable manure. Of course, in some cases the result of the experiment and the consequent recommendation may not be successful at the first instance. Then we make new suggestions and see that the whole thing is done successfully. As Mr. P. K. Narayana Pillai observed, it is not by chemical analysis alone that we make these recommendations.

I did not say that there was no biologist here. There are people who have sufficient knowledge of biology. I myself know biology. What I said was that a bacteriological investigation was necessary. Bacteriology is also a branch of biology. It is bacteria that chiefly affect the *kari* soils. It is therefore absolutely essential to have an expert soil-bacteriologist to carry on investigation for a biological study of the soil.

MR. A. HOOGEWERF (*Nominated*): I beg to know from the member what became of the experiments made in the fields of Mr. Mammen Mappillai.

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MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*) : I am coming to that. I am just referring to the experiments conducted in the *punja* lands at Alleppey. The major portion of the *punja* lands there are cultivated only once in two years.

MR. P. K. NARAYANA PILLAI (*Ambalapuzha*) : That is not quite correct.

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*) : There are some portions which are cultivated annually and others that are cultivated only once in two years. There is a canal running from the small bridge on the eastern side of the Ambalapuzha temple and going right up to *Chunkam* at Alleppey. The whole block of land lying on the western side of that canal is cultivated annually. The block of land on the eastern side is cultivated once in two years and in some cases only once in three years. The latter class of lands are mostly in the area which lies on the eastern side of the Pallatturutti river. Many ryots of Kuttanad told us : "There is the Agricultural Department. Why do you not improve the condition of our lands and help us to cultivate our lands annually? We cultivate them only once in two or three years. Why does the department not choose a small block in the area and demonstrate to us the proper method of cultivation in order to enable us to benefit by the results of the demonstration" ? Accordingly, we acquired thirty acres of land for demonstration purposes. We were cultivating it annually, and our experiment proved a success. The usual *pattam* in the surrounding area is about $2\frac{1}{2}$ to 3 *paras* for one *para* of land.

MR. K. C. MAMMEN MAPPILLAI (*Commerce and Industries, North*) : A word of personal explanation, Sir. I am cultivating the whole of my land annually, and I have about 300 acres there. I requested Dr. Kunjan Pillai to conduct experiments in 30 acres of my land. He applied different kinds of manure. I have to say with very great regret that the yield in the experimental plot was not at all greater than the yield in my other lands which surrounded it which I cultivated in the usual method. The results in the area in which Dr. Kunjan Pillai applied different kinds of manure were not in any way superior to those in the surrounding area. Mr. Paramesvaran Pillai knows the whole thing because he himself has come to the spot. There is a general impression that I have been greatly benefited by these experimental operations. That is not true. I only lost every year Rs. 300 or Rs. 400 in the purchase of manures suggested by the Department of Agriculture. But I have greatly benefited by Dr. Kunjan Pillai's advice that lime is very good to neutralise the acidity of Kuttanad soils. Though this advice was at first derided by the ryots, they have now become convinced of its truth, and the use of lime in *punja* lands, till then unknown, is now steadily extending.

PRESIDENT : Are you not cultivating your lands annually now ?

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[Mr. K. Parameswaran Pillai.]

MR. K. C. MAMMEN MAPPILLAI (*Commerce and Industries, North*): Yes; but it is because I have spent more capital and carried out better ploughing and drainage than my neighbours. I cannot say that the results I have obtained are commensurate with the expenses I have incurred or such as to induce other ryots to follow in my wake. I am not at all blaming Dr. Kunjan Pillai as he warned me at the outset that the results might prove disappointing. But since I was pointedly asked about it, I have taken this opportunity of emphatically dispelling the notion that Dr. Kunjan Pillai has enormously enriched me at Government expense. I have paid for every pound of manure supplied to me.

MR. T. K. VELU PILLAI (*Trivandrum* cum *Nedumangad*) Sir,—

PRESIDENT: He is only explaining. You cannot put a question to a member who is only offering an explanation. You can put a question only to the member who is in possession of the House.

MR. T. K. VELU PILLAI (*Trivandrum* cum *Nedumangad*): I may ask Mr. K. Parameswaran Pillai, Ag. Director of Agriculture and Fisheries.

PRESIDENT. You may very well ask him. (*Laughter.*)

MR. T. K. VELU PILLAI (*Trivandrum* cum *Nedumangad*): Has Mr. Parameswaran Pillai perused the Administration Report of 1097—that particular portion which alludes to Mr. Mammen Mappillai's affair?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): Yes.

MR. T. K. VELU PILLAI (*Trivandrum* cum *Nedumangad*): I shall read it. It deals with the *punja* cultivation farm at Alleppey.

"The experimental cultivation of 30 acres of *punja* lands at Alleppey, which was started in 1093, was continued on the same lines as in the previous year and completed in the year. The total yield was 3,974 *paras* or 132 *paras* per acre of land and the total net profit was Rs. 961-24-1 or Rs. 32-1-12 per acre. The experience of the last 5 years has demonstrated that a successful yearly crop can be raised in *punja* lands which are usually cultivated only once in 2 or 3 years."

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): I have perused it and I am just going to explain that.

MR. T. K. VELU PILLAI (*Trivandrum* cum *Nedumangad*): I wish to further ask whether the thirty acres are those alluded to by Mr. K. C. Mammen Mappillai.

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): I think so. Anyhow, we have demonstrated to the ryots of Kuttanad that, by the judicious application of lime and manure, the *punja* lands which are at present cultivated every other year or once in three years could be cultivated annually. I think the experiments were conducted continuously for the last five years and the results we obtained have to our minds proved quite successful.

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MR. K. C. MAMMEN MAPPILLAI (*Commerce and Industries, North*): I may also say that with Dr. Kunjan Pillai's concurrence after five years I gave up the use of manure and came to the conclusion that there was no necessity to continue the use of these manures.

PRESIDENT: The question has been put by Mr. Velu Pillai and he probably wants to know whether the statements are correct.

MR. T. K. VELU PILLAI (*Trivandrum cum Nedumangad*): I will ask another question. I wish to know if Mr. Mammen Mappillai, who is the owner of the land, by word or deed, objected to this portion of the Administration Report on the ground that it was untrue.

PRESIDENT: How can he object? I do not think that this question is admissible.

MR. T. K. VELU PILLAI (*Trivandrum cum Nedumangad*): May I know whether Mr. Mammen Mappillai admits it? If he does not admit, I shall not ask the question. As Mr. Mammen Mappillai says he has not read it, I do not press this. I wish to further ask whether the statement in the Administration Report is correct.

PRESIDENT: That you are entitled to ask.

MR. T. K. VELU PILLAI (*Trivandrum cum Nedumangad*): Is the statement in the Administration Report correct and based upon facts?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): Certainly.

MR. A. HOOGEWERF (*Nominated*): I want to know whether the statements made by Mr. Mammen Mappillai or those contained in the Administration Report are correct.

PRESIDENT: I must disallow that question.

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): I had a good deal of talk with Mr. Mammen Mappillai; and I think, for the first time, towards the end of 1089, I told him that in my opinion there was no necessity for applying large quantities of manure. But if we applied lime at the rate of 1,500 lbs. per acre that would be all right. Again I said that the soil in Travancore is very poor in phosphoric acid and the analysis conducted showed that in Kuttanad soil, small doses of phosphates would yield very good results. Then we tried, by the application of manure, whether there would be large increase of yield by using different kinds of manures in different places. The result only shows that, in soils of that type, if we apply lime we need not apply any manure. That is the inference we have drawn.

Not only has the Agricultural Department taken up this question. The Government also are doing all that is necessary. The Irrigation Department, the Forest Department, the Revenue Department—all these departments have joined together and taken up this question

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[Mr. C. P. Kochukunju Pillai.]

in right earnest and they are doing everything they can for extending paddy cultivation both intensively and extensively. Mr. C. P. Kochukunju Pillai has said that the committee he proposed would consist of officers from the Development Departments as well as some other members. We have got the Economic Development Board which consists of heads of all the Development Departments and some non-official members who are competent to discuss this question. If anybody wants to make any suggestion to the Development Board in regard to the improvement of cultivation of paddy he is quite at liberty to do so, and the Economic Development Board which consists of official members as well as non-official members will discuss the question. The Board is competent to discuss the question from various standpoints. Then, why go in for a new committee? The *personnel* will be the same. Even if we are going to appoint a new committee, all the heads of the Development Departments will be there. There is one Engineer to give expert opinion on matters relating to minor irrigation works. Of course there are other members also.

MR. P. K. NARAYANA PILLAI (*Ambalapuzha*): Is the Economic Development Board in the habit of taking evidence by investigation?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): If necessary, they will collect evidence by consulting persons who know the conditions of each locality.

MR. P. K. NARAYANA PILLAI (*Ambalapuzha*): Have they ever taken evidence?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): Whenever necessary they have taken evidence. Even if a committee is appointed all these people must be there.

MR. P. K. NARAYANA PILLAI (*Ambalapuzha*): In regard to paddy cultivation in the State, has the Development Board collected any information?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): Yes, it has.

MR. C. P. KOCHUKUNJU PILLAI (*Kottarakara* cum *Kunnattur*): What is the nature of the information collected?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): They have collected full statistics in regard to the area under paddy cultivation, and the average yield from one acre and the total output. If you want I shall give all the details.

MR. C. P. KOCHUKUNJU PILLAI (*Kottarakara* cum *Kunnattur*): May I know whether there was any failure of crops in different *elas* in the different taluks of the State?

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MR. K. PARAMESVARAN PILLAI (*Tiruvalla*): May I know whether you are in possession of information regarding the condition of the different *elas* in the different taluks in the State and how the crops have been failing in those *elas*?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): When they have had any doubt in regard to these things, they might have consulted people who are in possession of the information.

MR. C. P. KOCHUKUNJU PILLAI (*Kottarakara* cum *Kunnattur*): Are we to presume that the Board has collected no information about paddy cultivation and its failure?

PRESIDENT: It does not follow from his reply.

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): I shall read a portion of the proceedings of the Board. It runs as follows:

MR. P. K. NARAYANA PILLAI (*Ambalapuzha*): Have they made any estimate of the cultivable land, but not as yet under cultivation?

PRESIDENT: I do not think they have.

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): Yes, they have.

MR. P. K. NARAYANA PILLAI (*Ambalapuzha*): What is the extent of such lands?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): I cannot tell you off-hand.

PRESIDENT: Have you anything more to say?

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): Mr. Govinda Menon referred to the increasing demand of tenants for reduction of rent.

PRESIDENT: It was Mr. Changanachery Paramesvaran Pillai who referred to the increasing demand for reduction of rent.

MR. K. PARAMESVARAN PILLAI (*Ag. Director of Agriculture and Fisheries*): I beg your pardon. That is no conclusive proof as regards the reduction of output. That may be due to rise in the wages of labourers. It may also be owing to the springing up of new industries and new activities.

PRESIDENT: Do you, Mr. Kochukunju Pillai, wish your motion to be put to the vote?

MR. C. P. KOCHUKUNJU PILLAI (*Kottarakara* cum *Kunnattur*): Yes, I press for it.

The resolution was put to the vote and lost, 15 voting *for* and 21 *against*.

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[Mr. N. Ramakrishna Pillai.]

A poll was demanded and taken with the following results:—

AYES—16.

Mr. T. M. Chidambaratanu Pillai.
„ A. Govinda Menon.
„ A. Hoogewerf.
„ M. K. Khadir Pillai.
„ T. K. Velu Pillai.
„ N. Ramakrishna Pillai.
„ C. Sankara Menon.
„ P. K. Narayana Pillai.
Mr. Joseph Panjikaran.
„ K. Paramesvaran Pillai. (*Tiruvalla*).
„ M. N. Pillai.
„ M. R. Madhava Variar.
„ V. Kunjukrishna Pillai.
„ T. Kumara Pillai.
„ C. P. Kochukunju Pillai.
„ K. Dominic Tomman.

NOES—22.

Mr. I. C. Chacko.
„ Paul V. Daniel.
„ Dhanukoti Pillai.
„ K George.
„ L. C. Hodgson.
„ R. Krishna Pillai.
Dewan Bahadur Dr. P. N. Lakshmanan.
Rev. Fr. Kuriakose Vettikkapalli.
Mr. K. C. Mammen Mappillai.
„ P. Paramesvaran.
„ K V. Natesa Aiyar.
„ J. John Nidiry.
Mr. S. Paramesvara Aiyar.
„ K. Paramesvaran Pillai. (*Ag. Director of Agriculture*).
„ L. R. Raja Raja Varma.
„ C. Ramankunju.
„ W. H. Pitt.
Rao Bahadur K. V. Rangaswami Aiyangar.
Mr. S. C. H. Robinson.
„ V. Subba Aiyar.
„ S. Subrahmanya Karayalar.
„ A. J. Van Ross.

The resolution was declared lost.

The Council adjourned for lunch at 2-15 P. M.

The Council met again at 3-5 P. M.

Appointment of a Committee to Examine the Working of the Department of Ayurveda.

PRESIDENT: The next resolution stands in the name of Mr. N. Ramakrishna Pillai.

MR. N. RAMAKRISHNA PILLAI (*Vaikam* cum *Ettumanur*): Sir, I beg to move the following resolution :—

"This Council recommends to the Government that a committee of official and non-official members be appointed to examine the working of the Department of Ayurveda and to suggest measures for its further encouragement and expansion."

MR. R. KRISHNA PILLAI (*Chief Secretary to Government*): Sir, I cannot hear what the member says.

PRESIDENT: Mr. Ramakrishna Pillai, you are of course expected to speak from your seat. But if the House has no objection, you may take the seat next to Mr. Kunjukrishna Pillai and speak.

MR. N. RAMAKRISHNA PILLAI (*Vaikam* cum *Ettumanur*): Yes, I thank you, Sir.

I do not think it necessary to discuss the general efficacy of the Ayurvedic system of treatment or its merits and demerits as compared

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